## Remarks

Claims 1-55 are pending in the application. All claims stand rejected. By this paper, claims 23, 47 and 50 have been have amended. New claim 56 has been included to provide claim coverage commensurate with the scope of the invention. No new matter has been added.

Claim 47 was objected to because of a misspelling. Claim 50 was rejected under 35 U.S.C. 112, second paragraph, because it depends from a non-existent claim. The applicant has amended claims 47 and 50 per the Examiner's suggestions.

Claims 1-4, 8-19, 29-32, 36-44 and 47-49 were rejected under 35 U.S.C. 102(b) as being anticipated by Hamilton et al. ("Hamilton"). Claims 5-7, 20-22, 33-35, 45, 46, 36 and 50 were rejected under 35 U.S.C. 103(a) as being unpatentable over Hamilton in view of Traw et al. ("Traw"). These rejections are respectfully traversed.

Claim 1 recites a computer-implemented method for processing multimedia channels comprising:

> encrypting a first group of multimedia channels using a first type of encryption to produce a first group of encrypted multimedia channels;
>
> encrypting said first group of multimedia channels using a second type of encryption to produce a second group of encrypted multimedia channels; concurrently transmitting said first group of encrypted multimedia channels with said second group of multimedia channels to a plurality of multimedia subscribers having multimedia receivers capable of decrypting said first group of encrypted multimedia channels and/or said second group of multimedia channels.

These claimed features allow cable operators to use more advanced encryption and/or compression techniques for newer multimedia receivers. At the same time, older multimedia receivers will still receive channels encrypted or

compressed using standard techniques. As such, cable operators may seamlessly migrate to the newer multimedia receivers over time, without incurring the significant cost associated with replacing all legacy multimedia receivers at once.

Hamilton does not concurrently transmit the same group of multimedia channels encrypted using two types of encryption to a plurality of multimedia subscribers, as required by claim 1. As pointed out by the Examiner, Hamilton states that the "encrypter 74 preferably uses an encryption scheme which differs from the first encryption scheme used by encoder 53 at the satellite uplink 10." Col. 5, lines 36-38. However, this simply means that Hamilton uses different types of encryption for two different communication paths, *i.e.*, (1) from the uplink 10 to the headend 40, and (2) from the headend 40 to the subscriber (cable converter 86). Hamilton's abstract makes this apparent:

> The digital signals, having been encrypted by a first encryption scheme and sent over the first communication path, are received and decrypted [by the headend]. The decrypted signals are then retransmitted [by the headend] over the second communication path using a second encryption scheme that differs from the first encryption scheme.

Accordingly, Hamilton does not concurrently transmit channels encrypted using different techniques to subscribers, as claimed. Rather, Hamilton must initially receive and decrypt a first digital signal at a headend (not at a subscriber's multimedia receiver) before encrypting and transmitting a second digital signal that is ultimately received by the subscriber. Because of this, Hamilton cannot solve the stated problem of migrating users from legacy multimedia receivers to newer, advanced multimedia receivers. If Hamilton's subscribers only receive channels encrypted using one type of encryption, their multimedia receivers must be

compatible with that type of encryption. For instance, if Hamilton's second encryption scheme (which is received by the subscribers) is standard CA, and if the encryption scheme were changed at the headend to AES to accommodate a set of newly-deployed multimedia receivers, then all of the legacy receivers would be unable to display the AES-encoded channels.

In view of the foregoing, the applicant respectfully submits that claim 1 is patentably distinct over the cited references. Claims 2-12 depend directly or indirectly from claim 1 and are likewise believed to be patentably distinct for at least the same reasons.

Claim 29 includes essentially identical limitations as claim 1, but is written in a *Beauregard* format. Likewise, claim 41 includes similar limitations, explicitly reciting a headend system including first and second encryption modules and a QAM module for transmitting two groups of channels encrypted using different types to a plurality of multimedia subscribers. As described above, Hamilton does not encrypt the channels using two different techniques within the headend. Rather, Hamilton encrypts the channels using one technique in the uplink and later using another technique in the headend. Thus, subscribers do not receive both types of encrypted channels, completely eliminating the benefit provided by the claimed invention of being able to gradually deploy new multimedia receivers with advanced encryption/compression features.

New claim 56 makes the aforementioned distinction even more explicit, reciting a computer-implemented method for processing multimedia channels comprising:

encrypting a number of multimedia channels at a headend using a first type of encryption to produce a first group of encrypted multimedia channels;

simultaneously encrypting the same multimedia channels at the headend using a second type of encryption to produce a second group of encrypted multimedia channels;

concurrently transmitting said first group of encrypted multimedia channels with said second group of multimedia channels from the headend to a plurality of multimedia subscribers each having multimedia receivers capable of decrypting said first group of encrypted multimedia channels and/or said second group of multimedia channels.

Claim 56 recites that the first and second groups of encrypted multimedia channels are encrypted at the headend, unlike Hamilton, in which the first group is encrypted at the uplink. Moreover, claim 56 recites that the second group is simultaneously encrypted with the first group. Logically, this cannot be the case with Hamilton, since, as described in the abstract, Hamilton first receives and decrypts a signal before it is reencrypted and retransmitted to the subscribers. Finally, claim 56 makes it explicit that the two groups of encrypted multimedia channels are concurrently transmitted from the headend. Hamilton transmits his first group from the uplink, not the headend.

Claim 13 includes limitations similar to those of claim 1 and is likewise believed to be patentably distinct for at least the same reasons. Specifically, claim 13 recites a method comprising:

receiving a plurality of channels from content providers at a cable headend;

simulcasting premium cable channels to a plurality of subscribers in both a first encrypted format and a second encrypted format; and

transmitting non-premium channels to said plurality of subscribers in a non-encrypted format.

Hamilton does not simulcast premium cable channels (or any channels for that matter) to a plurality of subscribers in both a first encrypted format and a second encrypted format. Rather, Hamilton transmits encrypted channels from an uplink to a headend, after which the channels are decrypted at the headend, reencrypted, and retransmitted to subscribers. Thus, subscribers do not receive premium channels (or any channels) in both a first encrypted format and a second encrypted format, as required by claim 13.

The addition of Traw does not cure the deficiencies of Hamilton. Traw merely teaches that MPEG-2 may be used for broadcast quality video, while MPEG-4 may be used for low bandwidth video telephony (both of which are compression, not encryption, standards). Col. 4, lines 6-8. Traw does not concurrently transmit the same group of multimedia channels encrypted using two types of encryption to a plurality of multimedia subscribers, as required by claim 1. Likewise, Traw does not simulcast premium cable channels (or any channels for that matter) to a plurality of subscribers in both a first encrypted format and a second encrypted format, as required by claim 13. Moreover, Traw does not simultaneously encrypt multimedia channels at a headend using different encryption techniques, and then concurrently transmitting two sets of encrypted channels from the headend to a plurality of multimedia subscribers, as required by new claim 56.

Claims 23-28, 51 and 52 were rejected under 35 U.S.C. 102(e) as being anticipated by Takahashi et al. ("Takahashi"). This rejection is respectfully traversed. Claim 23 has been amended to recite a method for deploying new multimedia receivers comprising:

encrypting channels using both conditional access ("CA") encryption and a different form of encryption; and

simulcasting said channels encrypted in both CA encryption and said different form of encryption to subscribers having either a new multimedia receiver or a legacy multimedia receiver;

said channels encrypted using said different form of encryption being decryptable by said new multimedia receivers and said channels encrypted using said CA encryption being decryptable by said legacy multimedia receivers.

Takahashi does not disclose a method for deploying new multimedia receivers, as required by amended claim 23. Indeed, Takahashi does not even make a distinction between new multimedia receivers and legacy multimedia receivers. While Takahashi does disclose different types of encryption, the reference does not disclose or suggest simulcasting the same channels encrypted using different techniques. The mere fact that designers of content protection systems may select one or another encryption system as a design choice is not equivalent to the claimed process of encrypting the same channels twice, once using CA encryption and once using another form of encryption, and sending two sets of encrypted channels to subscribers, as required by amended claim 23.

The addition of Hamilton would not cure the deficiencies of Takahashi. Hamilton also does not disclose a method for deploying new multimedia receivers or even make a distinction between new multimedia receivers and legacy multimedia receivers. Furthermore, Hamilton does not simulcast channels encrypted using both CA and a different form of encryption to subscribers having either a new multimedia receiver or a legacy multimedia receiver. As explained above, Hamilton only transmits channels encrypted using one type of encryption scheme to subscribers.

The other type of encryption scheme mentioned by Hamilton is used only for transmission from an uplink to a headend. Thus, even the combination of Hamilton with Takahashi would not result in the claimed invention.

In view of the foregoing, the applicant respectfully submits that claim 23, as amended, is patentably distinct over the cited references. Claims 24-28 depend directly or indirectly from Takahashi and are likewise believed to be patentably distinct for at least the same reasons.

Claim 51 recites a system comprising:

> a centralized uplink facility to receive a first plurality of multimedia streams from content providers and to encrypt said first plurality of multimedia streams using a first type of encryption; and
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> a plurality of headend systems to receive said first plurality of multimedia streams encrypted using said first type of encryption and to simulcast said first plurality of multimedia streams using both said first type of encryption and a second type of encryption, said first plurality of multimedia streams encrypted using said second type of encryption at either said centralized uplink facility or at said headend systems.

As argued above, none of the references disclose a headend system (or multiple headend systems) that simulcast the same channels encrypted using two different encryption techniques. Hamilton does disclose the encryption of a first plurality of multimedia streams at an uplink using a first technique. However, when the encrypted multimedia steams are received at the headend, they are decrypted, reencrypted using a different technique, and then transmitted to the subscribers. There is no simulcasting of two multimedia streams by the headend that were encrypted using two different techniques. Accordingly, claim 51, as well as dependent claims 52-55, are believed to be patentably distinct over Hamilton.

The addition of Takahashi and Traw does not cure the deficiencies of Hamilton. As explained above, Takahashi merely discloses that content protection systems may use different encryption techniques as a design choice. Furthermore, Traw merely discloses that MPEG-2 is better for broadcast quality video, while MPEG-4 is optimized for low bandwidth video telephony. None of the references, alone or in combination, disclose the claimed elements recited above.

In view of the foregoing amendments and remarks, the applicants respectfully submit that claims 1-55, as amended, as well as new claim 56, are patentably distinct over the cited references, alone or in combination. A Notice of Allowance is respectfully requested.

Respectfully submitted,

**Digeo, Inc.**

By

Kory D. Christensen
Registration No. 43,548

STOEL RIVES LLP
One Utah Center Suite 1100
201 S Main Street
Salt Lake City, UT 84111-4904
Telephone: (801) 328-3131
Facsimile: (801) 578-6999